**Objective(s)**: 1. Demonstrate your understanding of solute, solvent, solubility, and properties.

2. Demonstrate safe use of lab equipment.

**Background**: 1. Solvents dissolve

2. Solutes are dissolved by solvents

3. Solubility is the ability of a solute to be dissolved.

**Tasks**: 1. Gather materials (test tubes, test tube rack, beaker, solutes and solvents, …)

2. Use a thermometer to measure room temperature. \_\_\_\_\_\_\_\_\_\_\_\_\_

3. Make first 4 items in the table.

4. Mix completely

5. Observe & record results in table.

6. Clean equipment.

7. Make the next 4 items.

8. Repeat, until table has been completed.

9. Clean and return all equipment.

10. Hand in lab.

11. Sit

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Solute** | **Quantity** | **Solvent** | **Quantity** | **Solubility**  **(Y/N)** | **Observations**  **(Changes)** |
| Salt | 0 ml | Water | 10 ml |  |  |
| Salt | 1 ml | Water | 10 ml |  |  |
| Salt | 3 ml | Water | 10 ml |  |  |
| Salt | 5 ml | Water | 10 ml |  |  |
| Salt | 0 ml | Vinegar | 10 ml |  |  |
| Salt | 1 ml | Vinegar | 10 ml |  |  |
| Salt | 3 ml | Vinegar | 10 ml |  |  |
| Salt | 5 ml | Vinegar | 10 ml |  |  |
| Sugar | 0 ml | Water | 10 ml |  |  |
| Sugar | 1 ml | Water | 10 ml |  |  |
| Sugar | 3 ml | Water | 10 ml |  |  |
| Sugar | 5 ml | Water | 10 ml |  |  |
| Sugar | 0 ml | Vinegar | 10 ml |  |  |
| Sugar | 1 ml | Vinegar | 10 ml |  |  |
| Sugar | 3 ml | Vinegar | 10 ml |  |  |
| Sugar | 5 ml | Vinegar | 10 ml |  |  |
| V. Oil | 0 ml | Vinegar | 10 ml |  |  |
| V. Oil | 1 ml | Vinegar | 10 ml |  |  |
| V. Oil | 3 ml | Vinegar | 10 ml |  |  |
| V. Oil | 5 ml | Vinegar | 10 ml |  |  |